

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004046**Date Inspected:** 29-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

CWI Inspector: Mr. Sun Bo

Bay 7

ZPMC QC inspection personnel ultrasonically accepted floor beam weld FB028-003-08 which was found to be ultrasonically rejected during QA Inspections. QC then confirmed this weld is rejected, and according to QC personnel, this weld will be repaired.

Heavy Bay 3

ZPMC has two deck plates identified as DP563-001. ABF Inspector Mr. Kevin Chen informed the QA Inspector that ZPMC has identified one of these deck plates as having an incorrectly installed diaphragm plate and a second DP563-001 plate has recently been manufactured with the identical markings as the original. Mr. Chen provided this QA Inspector with a copy of a list showing this and other deck plates that are being replaced by new deck plates.

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The QA Inspector observed ZPMC personnel using a large hydraulic press to perform mechanical straightening of tower skin plate P166. AWS D1.5 paragraph 3.7.3 states: "Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the Engineer."

ZPMC QC representative Mr. Shen Xuejun informed the QA Inspector that Inspector Mr. Sun Bo and ABF Inspectors are performing initial visual inspections of the welds of deck panel DP586-001 in heavy bay #3 and they are ready for QA visual inspections. The QA Inspector observed approximately 30 to 40% of the weld lengths have been identified as needing to be reworked. The QA Inspector marked a few additional areas of weld overlap. The QA Inspector documented the initial visual inspection on the yellow inspection status tag that is attached to the deck panel.

Bay 7

ZPMC notification of witness inspection document #00940 dated 8-29-2008 states that ZPMC QC inspection personnel will be conducting final ultrasonic inspections of floor beam welds in bay #7. The QA Inspector performed ultrasonic inspection of approximately 10% length of weld 80 in floor beams FB028-004, FB019-002, FB027-003, FB028-005, FB024-004, FB024-002, FB024-005 and FB024-003. The QA Inspector observed weld 80 in FB028-003 has been UT accepted by ZPMC QC and the QA Inspector observed a class "A" rejection in this weld. ZPMC then confirmed this weld contains a UT class "A" rejection and this weld is to be repaired. The other floor beam welds appear to comply with the ultrasonic acceptance criteria.

Bay 1

ZPMC notification of witness inspection document #00941 dated 8-29-2008 states that ZPMC QC inspection personnel will be conducting final ultrasonic inspections of OBG DP568-001 117~128 U-rib diaphragm welds in bay 1 at 1950 hours. At around 2030 hours the QA Inspector observed these U-ribs are installed on the deck plate and ZPMC personnel are preparing to tack weld these U-ribs to the deck plate. QA did not have access to perform UT inspections of the deck plate diaphragm welds.



Summary of Conversations:

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See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
